

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

**MARKING OBJECT VIRTUALIZATION  
INTELLIGENCE, LLC,**

*Plaintiff,*

v.

**ARRIS GROUP INC. AND  
ARRIS INTERNATIONAL PLC.**

*Defendants.*

**Civil Action No. \_\_\_\_\_**

**JURY TRIAL DEMANDED**

**COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff Marking Object Virtualization Intelligence, LLC (“MOV Intelligence” or “Plaintiff”), by and through its attorneys, brings this action and makes the following allegations of patent infringement relating to U.S. Patent Nos.: 6,553,127 (“the ‘127 patent”); 7,200,230 (“the ‘230 patent”); 6,802,006 (“the ‘006 patent”); 7,650,504 (“the ‘504 patent”); and 6,931,536 (“the ‘536 patent”) (collectively, the “patents-in-suit” or the “MOV Intelligence Patents”).

Defendants ARRIS Group Inc. and ARRIS International plc (collectively, “ARRIS” or “Defendant”) infringes each of the patents-in-suit in violation of the patent laws of the United States of America, 35 U.S.C. § 1 *et seq.*

**INTRODUCTION**

1. Rovi Corporation (“Rovi”) is a pioneer and leader in protecting computer technology, including digital rights management (“DRM”) and digital watermarking systems. In 1985, Rovi, then known as Macrovision Corporation (“Macrovision”), introduced the first system for protecting digital content on VHS tapes.<sup>1</sup> By 2001, Rovi’s Macrovision technology was ubiquitous in the distribution of video content and employed in 75% of DVDs sold in the

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<sup>1</sup> Aljean Harmetz, *Cotton Club Cassettes Coded to Foil Pirates*, N.Y. TIMES (April 24, 1985) (“The device, which works by confusing a recorder’s automatic gain control - the mechanism that controls the strength of the signal on the tape - was demonstrated at a news conference today by its inventor, John Ryan of Macrovision.”).

United States.<sup>2</sup> In the late 1990's, Rovi applied its video copy protection expertise to DRM and encryption for operating systems and executable files. Rovi developed groundbreaking products including: Macrosafe; SafeDisc; FlexLm; SafeAuthenticate; SafeCast; and InstallShield.

2. To facilitate the licensing of Rovi's foundational technology, including U.S. Patent Nos. 6,802,006 and 6,553,127, Rovi licensed and/or assigned 233 of its foundational patents to MOV Intelligence. Rovi assigned MOV Intelligence many of John O. Ryan's, the founder of Rovi predecessor Macrovision, groundbreaking patents.<sup>3</sup> MOV Intelligence owns, protects and licenses Rovi's inventions to allow companies to operate in the marketplace and ensure Rovi's labor and ingenuity is fairly compensated.

#### **THE PARTIES**

#### **MARKING OBJECT VIRTUALIZATION INTELLIGENCE, LLC**

3. Marking Object Virtualization Intelligence, LLC ("MOV Intelligence") is a Texas limited liability company with its principal place of business located at 903 East 18th Street, Suite 217, Plano, Texas 75074. MOV Intelligence is committed to advancing the current state of DRM and watermarking technologies.

4. MOV Intelligence Global Licensing, LLC ("MOV Global Licensing") is a wholly-owned subsidiary of MOV Intelligence and assists in the licensing of MOV Intelligence's patents in territories outside the United States with a focus on the European Union (and the United Kingdom).<sup>4</sup> MOV Intelligence Global Licensing, LLC is a corporation organized under the laws of Delaware.

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<sup>2</sup> Eileen Fitzpatrick, *Picture This*, BILLBOARD MAGAZINE at 59 (March 24, 2001) ("[Macrovision] provides its technology to 75% of all DVDs distributed by Hollywood studios. Overall, the company has copy-protected more than 800 million DVDs, 8 billion videocassettes and 45 million digital set-top boxes.").

<sup>3</sup> See U.S. Patent Nos. 6,381,367; 7,764,790; 6,701,062; 8,014,524; German Patent Nos. DE60001837 and DE60001837D1; Chinese Patent No. CN1186941C; Canadian Patent No. CA2379992C; European Patent No. EP1198959B1; and Japanese Patent No. JP4387627B2.

<sup>4</sup> Wolfram Schrag, *EU-Patent steht auf der Kippe*, BR.COM NACHRICHTEN (August 2016).

5. In an effort to obtain compensation for Rovi's pioneering work in the fields of copy protection and digital security, Rovi assigned the following patents to MOV Intelligence: U.S. Patent Nos. 7,299,209; 6,510,516; 6,802,006; 7,650,504; 6,813,640; 7,650,418; 7,200,230; 7,124,114; 6,381,367; 6,374,036; 6,360,000; 6,553,127; 6,701,062; 6,594,441; 7,764,790; 8,014,524; 6,931,536; and International Patent Nos. DE60047794; DE60148635.8; DE60211372.5; DE69901231.7-08; DK1047992; EP1047992; EP1303802; EP1332618; EP1444561; ES1047992; FR1047992; FR1303802; FR1332618; FR1444561; GB1047992; GB1303802; GB1332618; GB1444561; GR3040059; IE1047992; IE1444561; IT1047992; NL1047992; NL1444561; PT1047992; and SE1047992.

6. In a further effort to help protect Rovi's trailblazing technology, Rovi appointed MOV Intelligence as an authorized licensing agent for the following international patent assets: AT1020077; AT1198959; AT1080584; ATE232346; AT1020077; AU729762; AU741281; AU753421; AU743639; AU714103; AU729762; AU2002351508; AU765747; AU2000263715; BE1020077; BE1198959; BE1020077; BE1080584; BE900498; BRPI 9812908-2; BR9709332.7; BRPI 9812908-2; CA2305254; CA2332546; CA2379992; CA2305254; CA2332548; CA2557859; CA2252726; CA2462679; CA2315212; CA2416304; CA2425115; CH1020077; CH1080584; CH900498; CH1020077; CH1047992; CNZL98809610.2; CNZL99806376.2; CNZL00811179.0; CNZL98809610.2; CNZL99806377.0; CNZL97194746.5; CNZL02820738.6; CNZL99802008.7; CNZL00819775.X; CNZL200510089437; DE69807102.608; DE60001837.7; DE69908352.4-08; DE69718907.4-08; DE69807102.608; DK1020077; DK1080584; DK1198959; DK1020077; DK900498; EP1020077; EP1198959; EP1080584; EP900498; EP1020077; ES1020077; ES1198959; ES1080584; ESES2191844; ES1020077; FI1020077; FI1080584; FI1020077; FI900498; FR1020077; FR1198959; FR1080584; FR900498; FR1020077; GB1020077; GB1198959; GB1080584; GB900498; GB1020077; GR3041381; GR3045620; GR3043304; GR3041381; HK1028696; HKHK1035625; HK1028696; HK1035282; HK1018562; HKHK1069234; HKHK1057115; HK1083653B; IE1020077; IE1198959; IE1020077; IE1080584; IE900498;

IL135498; IL139543; IL148002; IL135498; IL139544; IN201442; IN220504; IN201442; IN207829; IT1020077; IT1080584; IT900498; IT1020077; JP4139560; JP4263706; JP4387627; JP4551617; JP4139560; JP4263706; JP3542557; JP4627809; JP4698925; JP4366037; JP4307069; KR374920; KR422997; KR761230; KR374920; KR362801; KR478072; KR689648; KR539987; KR752067; KR728517; KR593239; MX223464; MX231725; MX226464; MX223464; MX212991; MX214637; MX237690; MX240845; MYMY-123159-A; MYMY-123159-A; NL1020077; NL1198959; NL1080584; NL900498; NL1020077; NZ503280; NZ507789; NZ503280; NZ532122; PT1010077; PT1198959; PT1080584; PT900498; PT1010077; RU2195084; RU2216121; RU2251821; RU2195084; RU2208301; RU2258252; SE1020077; SE1198959; SE1080584; SE900498; SE1020077; SG71485; SG76965; SG86547; SG76964; SG71485; TWNI117461; TWNI-124303; TWNI-130428; TWNI1600674; TWNI-162661; TWNI-202640; TWNI117461; TWNI-130754; and TWNI-184111.

7. MOV Intelligence and its wholly-owned subsidiary, MOV Global Licensing, pursues the reasonable royalties owed for Defendant's use of Rovi's groundbreaking technology both here in the United States and throughout Europe. Rovi maintains 7,500 square feet of office in Plano, Texas. Rovi maintains off-site document storage at Plano, Texas, where Rovi stores over 4,800 boxes of hard-copy documents, at least some of which are relevant to this case. Rovi also maintains a datacenter located in Allen, Texas, where at least some email, source code and software relating to the patents-in-suit in this action are stored.

**ARRIS GROUP, INC. AND ARRIS INTERNATIONAL, PLC**

8. On information and belief, ARRIS Group, Inc. is a Delaware corporation with its principal place of business at 3871 Lakefield Drive, Suwanee, Georgia 30024. ARRIS may be served through its registered agent Corporation Service Company, 211 E. 7<sup>th</sup> Street, Suite 620, Austin, Texas 78701.

9. On information and belief, ARRIS International. plc is an English public liability company with a principal place of business at 3871 Lakefield Drive, Suwanee, Georgia 30024.

### **JURISDICTION AND VENUE**

10. This action arises under the patent laws of the United States, Title 35 of the United States Code. Accordingly, this Court has exclusive subject matter jurisdiction over this action under 28 U.S.C. §§ 1331 and 1338(a).

11. Upon information and belief, this Court has personal jurisdiction over ARRIS in this action because ARRIS has committed acts within the Eastern District of Texas giving rise to this action and has established minimum contacts with this forum such that the exercise of jurisdiction over ARRIS would not offend traditional notions of fair play and substantial justice. ARRIS, directly and/or through subsidiaries or intermediaries (including distributors, retailers, and others), has committed and continues to commit acts of infringement in this District by, among other things, offering to sell and selling products and/or services that infringe the patents-in-suit. In addition, Defendant ARRIS is registered to do business in the State of Texas.

12. Venue is proper in this district under 28 U.S.C. §§ 1391(b)-(d) and 1400(b). ARRIS is registered to do business in Texas, and upon information and belief, has transacted business in the Eastern District of Texas and has committed acts of direct and indirect infringement in the Eastern District of Texas.

### **MOV INTELLIGENCE'S LANDMARK INVENTIONS**

13. The groundbreaking inventions in DRM and digital watermarking taught in the patents-in-suit were pioneered by Rovi. Respect for intellectual property is at the center of Rovi's business. Rovi, first established in 1983 under the name Macrovision, is a trailblazing technology company that was initially focused on inventing and bringing to market fundamental technologies designed to allow producers and distributors of film and music to widely distribute their products while simultaneously protecting their art from unauthorized copying.

14. In 1985, Rovi introduced the first copy protection for VHS tapes. The Macrovision copy protection system took advantage of the NTSC video standard being defined by a 525-line vertical resolution. However, only 480 of those lines are used for transmitting video information. The extra 45 lines were used to carry control codes such as interlace information, closed captions, and other similar non-video content. The Macrovision copy protection system worked by adding certain codes to these control lines that were interpreted by an Automatic Gain Control chip in a VCR to scramble the video signal if it was being recorded. The film “Cotton Club” was the first to incorporate the Macrovision copy protection technology.



Aljean Harmetz, *Cotton Club Cassettes Coded to Foil Pirates*, N.Y. TIMES (April 24, 1985).

15. Macrovision’s copy protection technology became ubiquitous in the motion picture industry. By 2001, 75% of DVDs sold in the United States incorporated Macrovision’s copy protection technology. Macrovision’s copy protection technology became so important to content creators that Congress specifically regulated the manufacture and sale of technology that was incompatible with Macrovision’s copy protection technology. In the Digital Millennium Copyright Act, Congress outlawed VHS technology incompatible with Macrovision’s automatic gain control copy control technology. *See* 17 U.S.C. § 1201(k)(1) (“unless such recorder conforms to the automatic gain control copy control technology”).<sup>5</sup>

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<sup>5</sup> See also David Nimmer, *Back from the Future: A Proleptic Review of the Digital Millennium Copyright Act*, 16 BERKELEY TECH. L.J. 855, 862 (2001) (The DMCA “contains a welter of corporation-specific features, relating to Macrovision Corp. The features in question relate to section 1201’s controls on consumer analog devices.”) (citations omitted).

16. Rovi broadened its focus on video scrambling technologies to include copy protection and DRM for other media, including computer executables, firmware, operating system images, watermarking, and encryption. The company's products, including "MacroSafe," "SafeDisc," "FLEXlm," "FLEXnet," "SafeAuthenticate," "SafeCast," "SafeWrap," "SAM Solutions," and "GT Licensing" were broadly adopted by technology companies.

17. As media technology advanced over the decades from VHS to DVD to digital files hosted and served over the Internet and in the cloud, Macrovision kept pace, inventing industry-leading copy protection and digital security solutions that ensured content creators' intellectual property was protected. Macrovision developed breakthrough technologies, including "SafeDisc," a technology directed at preventing professional pirating by thwarting attempts to use CD-recordable drives or hard discs to make useable copies of CD-ROMs.

## CD Protection May Be Ready For Takeoff

Macrovision Thinks Legit Downloads Could Spur Use Of Anti-Piracy Technology

BY CATHERINE APPLEFELD OLSON

CD copy-protection technology company Macrovision hopes that the out-of-the-box popularity of Apple's iTunes pay-per-download music store, coupled with the rise of similar services, may help spur label adoption of anti-piracy technology on physical goods.

"We are entering a new phase;

the whole game is going to change," says Adam Sexton, VP of marketing for Macrovision's music technology division. "Until now, there has not really been a good, legit alternative for music fans. Napster showed us the demand was there, and now, in the post-iTunes world, with others planning to offer these new kinds of services, consumers do have good options online."



SEXTON

While record companies are actively discouraging file trading on peer-to-peer (P2P) networks, Sexton argues that they need to remember that "right now, every unprotected CD is a perfect source to pollute those P2P networks."

PICKING UP STEAM

With a licensing agreement with Microsoft in place and

young digital services to protect, Santa Clara, Calif.-based Macrovision believes it is poised to accelerate the use of CD copy protection in the U.S.

The company is still eyeing fourth-quarter 2003 for at least one general-market trial here.

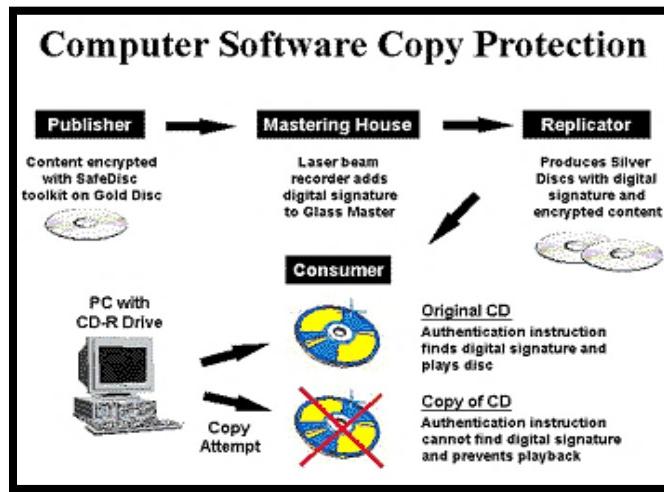
"This summer will be very telling," Sexton predicts. "We are presenting the new combined

(Continued on page 37)

Catherine Applefeld Olson, *CD Protection May Be Ready for Takeoff*, BILLBOARD MAGAZINE at 55 (June 28, 2003).

18. SafeDisc was one of Rovi's groundbreaking DRM products. SafeDisc authenticated computer image files using authenticating digital signatures embedded on an executable disc, as well as a multi-layered encrypted wrapper that secured the executable content. The SafeDisc digital signature, which could not be copied by recorders or mastering equipment, was embedded via a laser beam recorder at the time the disc master was produced at a mastering facility. In its first sixty days of production, Rovi's SafeDisc technology was applied to over one million computer programs and licensed to seventeen mastering and replication facilities worldwide. Shortly after its introduction, Rovi's SafeDisc technology was

incorporated in thirty-two products, including products from GT Interactive, Interplay, Microprose, Red Storm Entertainment, Take 2 Interactive Software, and TalonSoft.

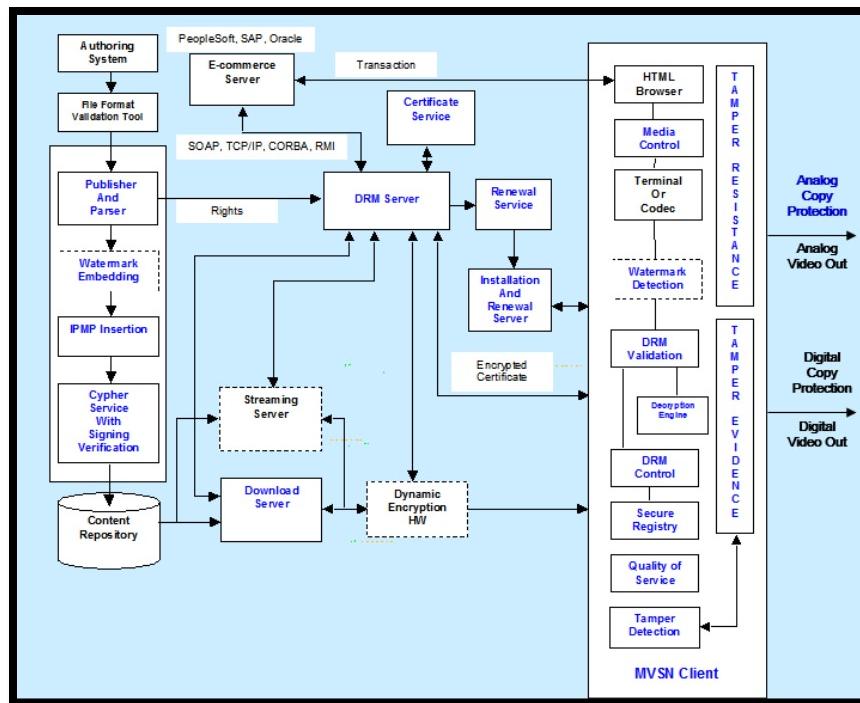


*Rovi SafeDisc Copy Protection Overview*, MACROVISION CORPORATION DATASHEET at 2 (1999) (“SafeDisc incorporates a unique authentication technology that prevents the re-mastering of CD-ROM titles and deters attempts to make unauthorized copies. The SafeDisc authentication process ensures that consumers will only be able to play original discs. The user is forced to purchase a legitimate copy.”).

19. When a user inserted a Rovi SafeDisc protected disc containing executable software in a drive, the authentication software verified the digital signature, allowing the program to be decrypted and run normally. If an unauthorized copy was loaded, the authentication software would be unable to authenticate the digital signature, and the executable would not run. Subsequent versions of SafeDisc (Version 2.0, released September 2000; Version 3.0, released 2003; and Version 4.0, released 2004) incorporated additional groundbreaking DRM functionality including digital signature authentication, unique signature files for each protected work, and support for 128-bit encryption. An important feature of SafeDisc was the multi-level, anti-hacking technology that prevented the compromise of security features. The Rovi SafeDisc technology was designed to not only deter consumer copying, but to also thwart experienced commercial pirates.

20. Rovi’s MacroSafe was another trailblazing digital rights management technology developed by Macrovision. MacroSafe was a multi-layered software solution for the secure

distribution and management of video, audio, graphics, and other multimedia applications for PCs, as well as for a variety of non-PC devices including set-top boxes, PDAs, portable entertainment devices, and digital consumer electronics appliances. Released in 2002, MacroSafe introduced 192-bit, AES encryption coupled with a key escrow server that enabled the secure distribution of digital content. The below high-level schematic shows the architecture of the MacroSafe system.



Kirby Kish, MACROSAFE SYSTEM: A SOLUTION FOR SECURE DIGITAL MEDIA DISTRIBUTION at 7 (January 2002) (showing the architecture of the MacroSafe system and use of a DRM Server and Key Escrow Server).<sup>6</sup>

21. To maintain Rovi's leadership position in the industry, Rovi has invested and continues to invest significant resources in the design, development, and licensing of its copy protection products and related technologies. Since 2013 alone, Rovi has invested over \$300

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<sup>6</sup> See also Michael Arnold et al., TECHNIQUES AND APPLICATIONS OF DIGITAL WATERMARKING AND CONTENT PROTECTION 203 (2002) (Describing Rovi's Cactus Data Shield product which by 2002 had been used in over 100 million compact discs. "This scheme [Rovi Cactus Data Shield] operates by inserting illegal data values instead of error-correcting codes.").

million dollars in research and development. Furthermore, Rovi employs close to 800 full-time workers throughout the United States, including at Rovi's Plano, Texas office.

22. The importance of Rovi's innovative solutions has been recognized by numerous leading industry groups. For example, in 2003, Macrovision was awarded the Software Industry Award for Best Security Initiative. Macrovision was chosen for its industry-wide leadership in software protection and security throughout its comprehensive portfolio of products.<sup>7</sup> In 2004, the Macrovision FLEXnet licensing platform was awarded the "Best Digital Rights Management Solution" award by the Software & Information Industry Association CODiE Awards.<sup>8</sup> In 2005, Rovi's InstallShield was inducted into the JOLT Product Hall of Fame by Software Development magazine, an honor given to only one product each year. In addition, InstallShield was given the "Riding the Crest" award for the 2004 best-selling installation and deployment tool by Programmer's Paradise.<sup>9</sup>

23. Rovi's history of innovation is also reflected in the extensive patent coverage that Rovi has obtained for its inventions. This portfolio, which includes more than 233 issued patents worldwide, is a direct result of Rovi's substantial and ongoing investment in research and development. The Asserted MOV Intelligence patents are reflective of this history of innovation, embodying a number of firsts in the development of DRM and watermarking related technologies.

24. The strength of MOV Intelligence's patent portfolio has been recognized by the technology industry. In particular, Google, Inc., LG Electronics, Sony Corporation, Sharp

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<sup>7</sup> MACROVISION WINS 2003 SOFTWARE INDUSTRY AWARD FOR BEST SECURITY INITIATIVE (October 31, 2003) ("Software Business Magazine's Annual Software Industry Awards recognize software companies that have displayed broad leadership with their initiatives and products, distinguishing their brands and strategies from a pool of nominations submitted by many successful software companies.").

<sup>8</sup> SIIA CODiE AWARDS (2004); *available at:* [http://www.siiainc.org/archive/codies/2015/pw\\_2004.asp](http://www.siiainc.org/archive/codies/2015/pw_2004.asp).

<sup>9</sup> MACROVISION'S INSTALLSHIELD INDUCTED INTO SOFTWARE DEVELOPMENT MAGAZINE'S JOLT AWARDS HALL OF FAME (March 24, 2005); *available at:* <http://www.flexerasoftware.com/producer/company/news-center/press-releases>.

Corporation, and Verizon Communications, Inc. among others, have acknowledged the importance of MOV Intelligence's innovations by taking licenses to patents covering the technologies at issue in this case. In addition to selling products and solutions incorporating its innovative technology to various companies, Rovi has received hundreds of millions of dollars in licensing revenue from technology companies who rely on Rovi's DRM and watermarking technology.

25. MOV Intelligence and ROVI's long-term financial success depends in part on its ability to establish, maintain, and protect its proprietary technology through patents. Defendant's infringement presents significant and ongoing damage to MOV Intelligence and ROVI's business.

26. ARRIS, in an effort to expand its product base and profit from the sale of ROVI's technology, has chosen to incorporate Macrovision's fundamental technology without a license or payment. The patents MOV Intelligence owns and licenses have been the subject of widespread misappropriation by numerous industry members who have utilized MOV Intelligence's foundational technology as a base around which to build their successful products.

#### **THE ASSERTED PATENTS**

##### **U.S. PATENT No. 6,553,127**

27. U.S. Patent No. 6,553,127 (the "127 patent"), entitled Method and Apparatus for Selective Block Processing, was filed on November 18, 1998, and claims priority to May 20, 1998. MOV Intelligence is the owner by assignment of the '127 patent. A true and correct copy of the '127 patent is attached hereto as Exhibit A. The '127 patent claims specific methods and systems for embedding and detecting a watermark in a data stream.

28. The '127 patent has been cited by over 140 issued United States patents and published patent applications as relevant prior art. Specifically, patents issued to the following companies have cited the '127 patent as relevant prior art:

- Koninklijke Philips Electronics N.V.
- Verance Corporation

- Digimarc Corporation
- Microsoft Corporation
- Oki Electric Industry Co., Ltd.
- Matsushita Electric Industrial Co., Ltd.
- Hitachi, Ltd.
- Sony Corporation
- Canon Kabushiki Kaisha
- NEC Corporation
- Arbitron, Inc.
- Civolution B.V.
- ***General Instrument Corporation (now Arris Group, Inc.)***
- Sandisk Technologies Inc.
- Marvell International Technology Ltd.
- Fujitsu Limited
- Thomson Licensing, LLC
- Mediatek Inc.
- Hewlett-Packard Development Company, L.P.

29. The ‘127 patent claims a technical solution to a problem unique to the transmission of digital information over a network: reliably embedding and detecting watermarks or other similar hidden messages or symbols in digital data streams.

#### **U.S. PATENT No. 7,200,230**

30. U.S. Patent No. 7,200,230 (the “‘230 patent”), entitled System and Method for Controlling and Enforcing Access Rights to Encrypted Media, was filed January 15, 2001, and claims priority to April 6, 2000. MOV Intelligence is the owner by assignment of the ‘230 patent. A true and correct copy of the ‘230 patent is attached hereto as Exhibit B. The ‘230 patent claims specific methods and systems for extending the capabilities of rights controlled access media systems. Further, the system and methods provide for designation and authentication of the identity of the data processor upon/through which a data object is to be used. The system and methods also provide for encryption of a data object and its associated rules such that only a designated data processor can decrypt and use the data object. The system and methods further provide for designation and authentication of the identity of a user by whom the data object is to be used. The system and methods also provide for encryption of a data object and its associated rules such that only a designated user can decrypt and use the data object.

31. The ‘230 patent has been cited by over 180 issued United States patents and published patent applications as relevant prior art. Specifically, patents issued to the following companies have cited the ‘230 patent as relevant prior art:

- International Business Machines Corporation
- Qualcomm Incorporated
- Autodesk, Inc.
- NTT Docomo, Inc.
- Hitachi, Ltd.
- Koninklijke Phillips Electronics N.C.
- Hewlett-Packard Development Company L.P.
- Time Warner Cable, Inc.
- Cisco Systems, Inc.
- Blackberry Limited
- *Arris Enterprises, Inc.*
- Meshnetworks, Inc.
- Google, Inc. (now Alphabet, Inc.)
- Oracle Corporation
- General Instrument Corporation
- Symantec Corporation
- Siemens Aktiengesellschaft
- AT&T, Inc.
- Nokia Corporation
- Verizon Communications, Inc.
- Voltage Security, Inc.
- Scientific-Atlanta, Inc. (now Cisco Systems, Inc.)
- Telefonaktiebolaget L M Ericsson

32. The ‘230 patent claims a technical solution to a problem unique to the transmission of digital information over a network – providing systems and methods for extending the capabilities of rights controlled access to digital content using three layers of encryption.

#### **U.S. PATENT No. 6,802,006**

33. U.S. Patent No. 6,802,006 (the “‘006 patent”), entitled System and Method of Verifying the Authenticity of Dynamically Connectable Executable Images, was filed on July 22, 1999, and claims priority to January 15, 1999. MOV Intelligence is the owner by assignment of the ‘006 patent. A true and correct copy of the ‘006 patent is attached hereto as Exhibit C. The

‘006 patent claims specific methods and systems for verifying the authenticity of executable images. The system includes a validator that determines a reference digital signature for an executable image using the contents of the executable image excluding those portions of the executable that are fixed-up by a program loader. The validator then, subsequent to the loading of the executable image, determines an authenticity digital signature to verify that the executable image has not been improperly modified.

34. The ‘006 patent has been cited by over 85 issued United States patents and published patent applications as relevant prior art. Specifically, patents issued to the following companies have cited the ‘006 patent as relevant prior art:

- Intertrust Technologies Corporation
- International Business Machines Corporation
- Intel Corporation
- Microsoft Corporation
- Check Point Software Technologies, Inc.
- Nokia Corporation
- Ipass, Inc.
- Nytell Software LLC
- Amazon Technologies, Inc.
- Panasonic Corporation
- Matsushita Electric Ind. Co. Ltd.
- NXP B.V. (now Cisco Systems, Inc.)
- Intel Corporation
- Hewlett-Packard Development Company, L.P.
- Apple, Inc.
- Lockheed Martin Corporation
- Symantec Corporation
- Zone Labs, Inc.

35. The ‘006 patent claims a technical solution to a problem unique to computer systems: verifying and authenticating executable images.

#### **U.S. PATENT No. 7,650,504**

36. U.S. Patent No. 7,650,504 (the “‘504 patent”), entitled System and Method of Verifying the Authenticity of Dynamically Connectable Executable Images, was filed on August 23, 2004, and claims priority to July 22, 1999. MOV Intelligence is the owner by assignment of

the ‘504 patent. A true and correct copy of the ‘504 patent is attached hereto as Exhibit D. The ‘504 patent claims specific methods and systems for verifying the authenticity of executable images. The systems and methods taught in the ‘504 patent incorporate a validator that determines a reference digital signature for an executable image using the contents of the executable image excluding those portions of the executable that are fixed-up by a program loader. The validator then, subsequent to the loading of the executable image, determines an authenticity digital signature to verify that the executable image has not been improperly modified. In addition, the validator ensures that each of the pointers in the executable image have not been improperly redirected.

37. The ‘504 patent and its underlying application have been cited by over 30 issued United States patents and published patent applications as relevant prior art. Specifically, patents issued to the following companies have cited the ‘504 patent as relevant prior art:

- Qualcomm Incorporated
- Intel Corporation
- Micro Beef Technologies, Ltd
- Microsoft Corporation
- Apple Inc.
- Symantec Corporation
- Samsung Electronics Co., Ltd.
- Cybersoft Technologies, Inc.
- Electronics and Telecommunications Research Institute (ETRI)

38. The ‘504 patent claims a technical solution to a problem unique to the transmission of digital information over a network: verifying the identity of a software application in a dynamic loading environment. In particular, the system determines whether a software application that has been dynamically connected to another data object has been tampered with subsequent to the execution of the software application.

#### **U.S. PATENT No. 6,931,536**

39. U.S. Patent No. 6,931,536 (the “‘536 patent”), entitled Enhanced Copy Protection of Proprietary Material Employing Multiple Watermarks, was filed on March 6, 2001. MOV Intelligence is the owner by assignment of the ‘536 patent. A true and correct copy of the ‘536

patent is attached hereto as Exhibit E. The '536 patent claims specific methods and systems for distributing proprietary material with enhanced copy and play protection. The '536 patent teaches the use of multiple watermarks for enhanced copy protection. The first watermark is to be processed by programmable devices and non-programmable devices that are configured to process the first watermark for copy protection of the proprietary material. The '536 patent also teaches embedding a second watermark in the digital content material. The second watermark is processed by non-programmable devices configured to process the second watermark for copy protection of the proprietary material in the event that the first watermark is not detected.

40. The '536 patent has been cited by over 120 issued United States patents and published patent applications as relevant prior art. Specifically, patents issued to the following companies have cited the '536 patent as relevant prior art:

- Sanyo Electric Co., Ltd.
- Koninklijke Philips Electronics N.V.
- Verance Corporation
- Digimarc Corporation
- Adobe Systems Incorporated
- Sony Corporation
- Panasonic Corporation
- Interdigital Technology Corporation
- Victor Co of Japan Ltd.
- Primax Electronics Ltd.
- Kabushiki Kaisha Toshiba
- Seiko Epson Corporation

41. The '536 patent claims a technical solution to a problem unique to the transmission of digital information over a network: providing a method and apparatus for distributing proprietary material with enhanced copy and play protection using multiple embedded watermarks.

**COUNT I**  
**INFRINGEMENT OF U.S. PATENT NO. 6,553,127**

42. MOV Intelligence references and incorporates by reference the preceding paragraphs of this Complaint as if fully set forth herein.

43. ARRIS designs, makes, uses, sells, and/or offers for sale in the United States products and/or services for digital rights management.

44. ARRIS designs, makes, sells, offers to sell, imports, and/or uses the ARRIS SECUREMEDIA The Encryptonite ONE System (the “ARRIS ‘127 Products”).

45. On information and belief, one or more ARRIS subsidiaries and/or affiliates use the ARRIS ‘127 Products in regular business operations.

46. On information and belief, one or more of the ARRIS ‘127 Products include watermarking technology.

47. On information and belief, one or more of the ARRIS ‘127 Products enable detecting a watermark embedded in selected blocks of a watermarked data stream having a plurality of data elements.

48. On information and belief, the ARRIS ‘127 Products are available to businesses and individuals throughout the United States.

49. On information and belief, the ARRIS ‘127 Products are provided to businesses and individuals located in the Eastern District of Texas.

50. On information and belief, the ARRIS ‘127 Products enable the detection or placement of a watermark in a data stream.

51. On information and belief, the ARRIS ‘127 Products comprise a system wherein the watermark is placed in a data stream based on a texture criterion that measures a variation of a selected characteristic associated with each data element of the watermarked data stream. For example, on information and belief, the ARRIS comprises a communication interface to, and is configured to divide the watermarked data stream into a plurality of equally sized blocks as chosen arbitrarily in the embedding process.

52. On information and belief, the ARRIS ‘127 Products enable selecting only the blocks that meet substantially similar texture criterion as that used in selecting the blocks for embedding the watermark.

53. On information and belief, the ARRIS ‘127 Products enable detecting the watermark only in the blocks that were embedded with the watermark and were selected by the selecting step thereby decreasing the time and number of operations necessary to process a given number of blocks.

54. On information and belief, the ARRIS ‘127 Products enable the placement of a watermark in a data stream wherein the data stream is a video stream.

55. On information and belief, the ARRIS ‘127 Products enable embedding a watermark in blocks that meet a substantially similar textual criteria.

56. On information and belief, the ARRIS ‘127 Products contain functionality for embedding a watermark only in portions of the data stream whose spectral energy exceeds a predetermined threshold according to a texture criterion, to create a watermarked data stream.

57. On information and belief, the ARRIS ‘127 Products enable the detection of a watermark.

58. On information and belief, the ARRIS ‘127 Products enable dividing a data stream into the selected blocks of substantially similar texture criterion.

59. On information and belief, one or more of the ARRIS ‘127 Products enable selecting a block of content from a data stream.

60. On information and belief, ARRIS has directly infringed and continues to directly infringe the ‘127 patent by, among other things, making, using, offering for sale, and/or selling digital content protection technology, including but not limited to the ARRIS ‘127 Products, which include infringing watermarking technologies. Such products and/or services include, by way of example and without limitation, the ARRIS SECUREMEDIA The Encrytonite ONE System.

61. By making, using, testing, offering for sale, and/or selling watermarking products and services, including but not limited to the ARRIS ‘127 Products, ARRIS has injured MOV Intelligence and is liable to MOV Intelligence for directly infringing one or more claims of the ‘127 patent, including at least claim 10, pursuant to 35 U.S.C. § 271(a).

62. On information and belief, ARRIS also indirectly infringes the ‘127 patent by actively inducing infringement under 35 USC § 271(b).

63. On information and belief, ARRIS had knowledge of the ‘127 patent since at least January 2015, when U.S. Patent No. 8,565,472 was assigned to ARRIS. U.S. Patent No. 8,565,472 cites the ‘127 patent as prior art. Alternatively, ARRIS had knowledge of the ‘127 patent since at least January 2015, when U.S. Patent No. 8,340,343 was assigned to ARRIS. U.S. Patent No. 8,340,343 cites the ‘127 patent as prior art. Alternatively, ARRIS had knowledge of the ‘127 patent since at least January 2015, when U.S. Patent No. 8,538,069 was assigned to ARRIS. U.S. Patent No. 8,538,069 cites the ‘127 patent as prior art. Alternatively, ARRIS had knowledge of the ‘127 patent since at least service of this Complaint or shortly thereafter, and on information and belief, ARRIS knew of the ‘127 patent and knew of its infringement, including by way of this lawsuit.

64. On information and belief, ARRIS intended to induce patent infringement by third-party customers and users of the ARRIS ‘127 Products and had knowledge that the inducing acts would cause infringement or was willfully blind to the possibility that its inducing acts would cause infringement. ARRIS specifically intended and was aware that the normal and customary use of the accused products would infringe the ‘127 patent. ARRIS performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge of the ‘127 patent and with the knowledge that the induced acts would constitute infringement. For example, ARRIS provides the ARRIS ‘127 Products that have the capability of operating in a manner that infringe one or more of the claims of the ‘127 patent, including at least claim 10, and ARRIS further provides documentation and training materials that cause customers and end users of the ARRIS ‘127 Products to utilize the products in a manner that directly infringe one or more claims of the ‘127 patent. By providing instruction and training to customers and end-users on how to use the ARRIS ‘127 Products in a manner that directly infringes one or more claims of the ‘127 patent, including at least claim 10, ARRIS specifically intended to induce infringement of the ‘127 patent. On information and belief, ARRIS engaged in such inducement to promote

the sales of the ARRIS '127 Products, e.g., through ARRIS user manuals, product support, marketing materials, and training materials to actively induce the users of the accused products to infringe the '127 patent. Accordingly, ARRIS has induced and continues to induce users of the accused products to use the accused products in their ordinary and customary way to infringe the '127 patent, knowing that such use constitutes infringement of the '127 patent.

65. The '127 patent is well-known within the industry as demonstrated by the over 140 citations to the '127 patent in published patents and patent applications assigned to technology companies and academic institutions. Moreover, ARRIS had knowledge of the '127 patent since at least January 2015, when U.S. Patent No. 8,565,472 was assigned to ARRIS. U.S. Patent No. 8,565,472 cites the '127 patent as prior art. Alternatively, ARRIS had knowledge of the '127 patent since at least January 2015, when U.S. Patent No. 8,340,343 was assigned to ARRIS. U.S. Patent No. 8,340,343 cites the '127 patent as prior art. Alternatively, ARRIS had knowledge of the '127 patent since at least January 2015, when U.S. Patent No. 8,538,069 was assigned to ARRIS. U.S. Patent No. 8,538,069 cites the '127 patent as prior art. Several of ARRIS's competitors have paid considerable licensing fees for their use of the technology claimed by the '127 patent. In an effort to gain an advantage over ARRIS's competitors by utilizing the same licensed technology without paying reasonable royalties, ARRIS infringed the '127 patent in a manner best described as willful, wanton, malicious, in bad faith, deliberate, consciously wrongful, flagrant, or characteristic of a pirate.

66. To the extent applicable, the requirements of 35 U.S.C. § 287(a) have been met with respect to the '127 patent.

67. As a result of ARRIS's infringement of the '127 patent, MOV Intelligence has suffered monetary damages, and seeks recovery in an amount adequate to compensate for ARRIS's infringement, but in no event less than a reasonable royalty for the use made of the invention by ARRIS together with interest and costs as fixed by the Court.

**COUNT II**  
**INFRINGEMENT OF U.S. PATENT NO. 7,200,230**

68. MOV Intelligence references and incorporates by reference the preceding paragraphs of this Complaint as if fully set forth herein.

69. ARRIS designs, makes, uses, sells, and/or offers for sale in the United States products and/or services for digital rights management.

70. ARRIS designs, makes, sells, offers to sell, imports, and/or uses ARRIS SECUREMEDIA HLS+ (the “ARRIS ‘230 Products”).

71. On information and belief, one or more ARRIS subsidiaries and/or affiliates use the ARRIS ‘230 Products in regular business operations.

72. On information and belief, one or more of the ARRIS ‘230 Products include digital rights management technology.

73. On information and belief, one or more of the ARRIS ‘230 Products enable associating a user program key with a user program configured to run on a user data processor.

74. On information and belief, the ARRIS ‘230 Products are available to businesses and individuals throughout the United States.

75. On information and belief, the ARRIS ‘230 Products are provided to businesses and individuals located in the Eastern District of Texas.

76. On information and belief, the ARRIS ‘230 Products enable determining whether the use of the data object is to be restricted to a particular user data processor.

77. On information and belief, the ARRIS ‘230 Products comprise a system wherein a machine key device is associated with the particular user data processor. Further, the machine key device is accessible by the user program, and the machine key device maintains a portion of a machine key.

78. On information and belief, the ARRIS ‘230 Products enable encrypting a data object so the decryption of a first secure layer and a second secure layer of the encrypted data object requires the user program key and the machine key.

79. On information and belief, the ARRIS ‘230 Products enable determining whether the use of the data object is to be restricted to a particular user.

80. On information and belief, the ARRIS ‘230 Products provide for the designation and authentication of the identity of a user by whom the data object is to be used.

81. On information and belief, the ARRIS ‘230 Products enable associating a user key device with the particular user. Further, the ARRIS ‘230 Products enable the user key device to be made accessible by the user program. And, the user key device maintains a portion of a user key.

82. On information and belief, the ARRIS ‘230 Products contain functionality for encrypting a data object so the decryption of a third secure layer of the encrypted data object requires the user key.

83. On information and belief, the ARRIS ‘230 Products contain functionality wherein the third key used by the system for managing digital rights is the media access controller (MAC) address of the user data processor.

84. On information and belief, the ARRIS ‘230 Products provide for encryption of a data object so only a designated data processor can decrypt and use the data object.

85. On information and belief, the ARRIS ‘230 Products enable user specific digital rights management authorization and access.

86. On information and belief, ARRIS has directly infringed and continues to directly infringe the ‘230 patent by, among other things, making, using, offering for sale, and/or selling digital content protection technology, including but not limited to the ARRIS ‘230 Products, which include infringing digital rights management technology. Such products and/or services include, by way of example and without limitation, ARRIS SECUREMEDIA HLS+.

87. By making, using, testing, offering for sale, and/or selling digital rights management products and services, including but not limited to the ARRIS ‘230 Products, ARRIS has injured MOV Intelligence and is liable to MOV Intelligence for directly infringing

one or more claims of the ‘230 patent, including at least claim 39, pursuant to 35 U.S.C. § 271(a).

88. On information and belief, ARRIS also indirectly infringes the ‘230 patent by actively inducing infringement under 35 USC § 271(b).

89. On information and belief, ARRIS had knowledge of the ‘230 patent since at least November 2013 when U.S. Patent No. 8,577,041 issued. U.S. Patent No. 8,577,041 cites as prior art the U.S. Patent Application, U.S. Patent App. Publ. No. 2001/0029581, that led to the ‘230 patent. Alternatively, ARRIS had knowledge of the ‘230 patent since at least service of this Complaint or shortly thereafter, and on information and belief, ARRIS knew of the ‘230 patent and knew of its infringement, including by way of this lawsuit.

90. On information and belief, ARRIS intended to induce patent infringement by third-party customers and users of the ARRIS ‘230 Products and had knowledge that the inducing acts would cause infringement or was willfully blind to the possibility that its inducing acts would cause infringement. ARRIS specifically intended and was aware that the normal and customary use of the accused products would infringe the ‘230 patent. ARRIS performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge of the ‘230 patent and with the knowledge that the induced acts would constitute infringement. For example, ARRIS provides the ARRIS ‘230 Products that have the capability of operating in a manner that infringe one or more of the claims of the ‘230 patent, including at least claim 39, and ARRIS further provides documentation and training materials that cause customers and end users of the ARRIS ‘230 Products to utilize the products in a manner that directly infringe one or more claims of the ‘230 patent. By providing instruction and training to customers and end-users on how to use the ARRIS ‘230 Products in a manner that directly infringes one or more claims of the ‘230 patent, including at least claim 39, ARRIS specifically intended to induce infringement of the ‘230 patent. On information and belief, ARRIS engaged in such inducement to promote the sales of the ARRIS ‘230 Products, e.g., through ARRIS user manuals, product support, marketing materials, and training materials to actively induce the users of the accused products

to infringe the '230 patent. Accordingly, ARRIS has induced and continues to induce users of the accused products to use the accused products in their ordinary and customary way to infringe the '230 patent, knowing that such use constitutes infringement of the '230 patent.

91. The '230 patent is well-known within the industry as demonstrated by the over 180 citations to the '230 patent family in published patents and published patent applications assigned to technology companies and academic institutions. ARRIS had knowledge of the '230 patent since at least November 2013 when U.S. Patent No. 8,577,041 issued. U.S. Patent No. 8,577,041 cites as prior art the U.S. Patent Application, U.S. Patent App. Publ. No. 2001/0029581, that led to the '230 patent. Several of ARRIS's competitors have paid considerable licensing fees for their use of the technology claimed by the '230 patent. In an effort to gain an advantage over ARRIS's competitors by utilizing the same licensed technology without paying reasonable royalties, ARRIS infringed the '230 patent in a manner best described as willful, wanton, malicious, in bad faith, deliberate, consciously wrongful, flagrant, or characteristic of a pirate.

92. To the extent applicable, the requirements of 35 U.S.C. § 287(a) have been met with respect to the '230 patent.

93. As a result of ARRIS's infringement of the '230 patent, MOV Intelligence has suffered monetary damages, and seeks recovery in an amount adequate to compensate for ARRIS's infringement, but in no event less than a reasonable royalty for the use made of the invention by ARRIS together with interest and costs as fixed by the Court.

**COUNT III**  
**INFRINGEMENT OF U.S. PATENT NO. 6,802,006**

94. MOV Intelligence references and incorporates by reference the preceding paragraphs of this Complaint as if fully set forth herein.

95. ARRIS designs, makes, uses, sells, and/or offers for sale in the United States products and/or services for determining the authenticity of an executable image.

96. ARRIS designs, makes, sells, offers to sell, imports, and/or uses the ARRIS SECUREMEDIA The Encrytponite ONE System (the “ARRIS ‘006 Products”).

97. On information and belief, one or more ARRIS subsidiaries and/or affiliates use the ARRIS ‘006 Products in regular business operations.

98. On information and belief, one or more of the ARRIS ‘006 Products include authentication technology.

99. On information and belief, one or more of the ARRIS ‘006 Products enable authenticating the identity of a software application in a dynamic loading environment. In particular, the ARRIS ‘006 Products determine whether an executable image has been dynamically connected to another data object that has been tampered with subsequent to the execution of the software application.

100. On information and belief, the ARRIS ‘006 Products are available to businesses and individuals throughout the United States.

101. On information and belief, the ARRIS ‘006 Products are provided to businesses and individuals located in the Eastern District of Texas.

102. On information and belief, the ARRIS ‘006 Products enable identifying one or more locations within the executable image, each of the identified locations being modified by a program loader.

103. On information and belief, the ARRIS ‘006 Products comprise a system wherein a reference digital signature is generated based on an executable image.

104. On information and belief, the ARRIS ‘006 Products generate a reference digital signature that excludes one or more locations in an executable image.

105. On information and belief, the ARRIS ‘006 Products are capable of storing the reference digital signature on a computer network.

106. On information and belief, the ARRIS ‘006 Products comprise systems and methods wherein an authenticity digital signature is generated based on an executable image.

107. On information and belief, the ARRIS '006 Products comprise systems and methods that generate an authenticity digital signature that excludes one or more locations in an executable image.

108. On information and belief, the ARRIS '006 Products comprise systems and methods that determine whether the authenticity digital signature matches the reference digital signature.

109. On information and belief, the ARRIS '006 Products contain functionality that generates a warning if the reference digital signature does not match the authenticity digital signature.

110. On information and belief, the ARRIS '006 Products contain functionality wherein the digital signature is generated based on a first and second point in time. For example, one or more of the ARRIS '006 Products generate a reference digital signature at a first point in time. Subsequently, an authenticity digital signature is generated (at a second point in time).

111. On information and belief, the ARRIS '006 Products comprise a system and method that generates a digital signature based on a hash value. Specifically, the reference digital signature that is generated by the ARRIS '006 Products at a first point in time is based on a hash value. Later the authenticity digital signature is also generated based on a hash function that is used to check data integrity.

112. On information and belief, the ARRIS '006 Products comprise a system and method that can verify the identity a computer application.

113. On information and belief, the ARRIS '006 Products enable the detection of corrupted data in a computer image.

114. On information and belief, the ARRIS '006 Products enable the verification of the integrity of software images.

115. On information and belief, ARRIS has directly infringed and continues to directly infringe the '006 patent by, among other things, making, using, offering for sale, and/or selling content protection technology, including but not limited to the ARRIS '006 Products, which

includes technology for verifying the authenticity of a software image. Such products and/or services include, by way of example and without limitation, the ARRIS SECUREMEDIA The Encrypotnite ONE System.

116. By making, using, testing, offering for sale, and/or selling verification and authentication products and services, including but not limited to the ARRIS ‘006 Products, ARRIS has injured MOV Intelligence and is liable to MOV Intelligence for directly infringing one or more claims of the ‘006 patent, including at least claims 1, 3, 14, and 15, pursuant to 35 U.S.C. § 271(a).

117. On information and belief, ARRIS also indirectly infringes the ‘006 patent by actively inducing infringement under 35 USC § 271(b).

118. On information and belief, ARRIS had knowledge of the ‘006 patent since at least service of this Complaint or shortly thereafter, and on information and belief, ARRIS knew of the ‘006 patent and knew of its infringement, including by way of this lawsuit.

119. On information and belief, ARRIS intended to induce patent infringement by third-party customers and users of the ARRIS ‘006 Products and had knowledge that the inducing acts would cause infringement or was willfully blind to the possibility that its inducing acts would cause infringement. ARRIS specifically intended and was aware that the normal and customary use of the accused products would infringe the ‘006 patent. ARRIS performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge of the ‘006 patent and with the knowledge that the induced acts would constitute infringement. For example, ARRIS provides the ARRIS ‘006 Products that have the capability of operating in a manner that infringe one or more of the claims of the ‘006 patent, including at least claims 1, 3, 14, and 15, and ARRIS further provides documentation and training materials that cause customers and end users of the ARRIS ‘006 Products to utilize the products in a manner that directly infringe one or more claims of the ‘006 patent. By providing instruction and training to customers and end-users on how to use the ARRIS ‘006 Products in a manner that directly infringes one or more claims of the ‘006 patent, including at least claims 1, 3, 14, and 15, ARRIS

specifically intended to induce infringement of the '006 patent. On information and belief, ARRIS engaged in such inducement to promote the sales of the ARRIS '006 Products, *e.g.*, through ARRIS user manuals, product support, marketing materials, and training materials to actively induce the users of the accused products to infringe the '006 patent. Accordingly, ARRIS has induced and continues to induce users of the accused products to use the accused products in their ordinary and customary way to infringe the '006 patent, knowing that such use constitutes infringement of the '006 patent.

120. The '006 patent is well-known within the industry as demonstrated by the over 85 citations to the '006 patent in issued patents and published patent applications assigned to technology companies and academic institutions. Several of ARRIS's competitors have paid considerable licensing fees for their use of the technology claimed by the '006 patent. In an effort to gain an advantage over ARRIS's competitors by utilizing the same licensed technology without paying reasonable royalties, ARRIS infringed the '006 patent in a manner best described as willful, wanton, malicious, in bad faith, deliberate, consciously wrongful, flagrant, or characteristic of a pirate.

121. To the extent applicable, the requirements of 35 U.S.C. § 287(a) have been met with respect to the '006 patent.

122. As a result of ARRIS's infringement of the '006 patent, MOV Intelligence has suffered monetary damages, and seeks recovery in an amount adequate to compensate for ARRIS's infringement, but in no event less than a reasonable royalty for the use made of the invention by ARRIS together with interest and costs as fixed by the Court.

**COUNT IV**  
**INFRINGEMENT OF U.S. PATENT NO. 7,650,504**

123. MOV Intelligence references and incorporates by reference the preceding paragraphs of this Complaint as if fully set forth herein.

124. ARRIS designs, makes, uses, sells, and/or offers for sale in the United States products and/or services for verifying the authenticity of executable images.

125. ARRIS designs, makes, sells, offers to sell, imports, and/or uses the ARRIS SECUREMEDIA The Encrytponite ONE System (the “ARRIS ‘504 Products”).

126. On information and belief, one or more ARRIS subsidiaries and/or affiliates use the ARRIS ‘504 Products in regular business operations.

127. On information and belief, one or more of the ARRIS ‘504 Products include authentication technology.

128. On information and belief, one or more of the ARRIS ‘504 Products comprise systems and methods for determining the authenticity of an executable image.

129. On information and belief, one or more of the ARRIS ‘504 Products enable authenticating and verifying an executable image. In particular, the ARRIS ‘504 Products determine whether a software application that has been dynamically connected to another data object has been tampered with subsequent to the execution of the software application.

130. On information and belief, the ARRIS ‘504 Products are available to businesses and individuals throughout the United States.

131. On information and belief, the ARRIS ‘504 Products are provided to businesses and individuals located in the Eastern District of Texas.

132. On information and belief, the ARRIS ‘504 Products enable the use of a reference digital signature for an executable image. The reference digital signature uses the contents of the executable image excluding portions of the executable that are fixed-up by a program loader.

133. On information and belief, the ARRIS ‘504 Products comprise a system wherein a reference digital signature is generated based on an executable image.

134. On information and belief, the ARRIS ‘504 Products generate a reference digital signature that excludes one or more locations in an executable image.

135. On information and belief, the ARRIS ‘504 Products comprise systems and methods wherein subsequent to the loading of the executable image the ‘504 Products determine

an authenticity digital signature to verify that the executable image has not been improperly modified.

136. On information and belief, the ARRIS ‘504 Products comprise systems and methods that generate an authenticity digital signature that excludes one or more locations in an executable image.

137. On information and belief, the ARRIS ‘504 Products are systems and methods that generate an authenticity digital signature after the executable image is loaded into memory. The authenticity digital signature which is generated by the ARRIS ‘504 Products excludes one or more pointers in need of fixing up;

138. On information and belief, the ARRIS ‘504 Products comprise systems and methods that determine whether the authenticity digital signature matches the reference digital signature.

139. On information and belief, the ARRIS ‘504 Products enable the generating of a reference digital signature prior to loading the executable image into memory. Specifically, the ARRIS ‘504 Products generate a reference digital signature that excludes one or more pointers from the reference digital signature.

140. On information and belief, the ARRIS ‘504 Products contain functionality wherein the digital signature is generated based on a first and second point in time.

141. On information and belief, the ARRIS ‘504 Products have the ability to compare the reference digital signature and the authenticity digital signature to perform an authenticity check.

142. On information and belief, the ARRIS ‘504 Products enable the detection of corrupted data in a computer image.

143. On information and belief, the ARRIS ‘504 Products enable the verification of the integrity of software images.

144. On information and belief, ARRIS has directly infringed and continues to directly infringe the ‘504 patent by, among other things, making, using, offering for sale, and/or selling

content protection technology, including but not limited to the ARRIS ‘504 Products, which includes technology for verifying the authenticity of a software image. Such products and/or services include, by way of example and without limitation, the ARRIS SECUREMEDIA The Encryptonite ONE System.

145. By making, using, testing, offering for sale, and/or selling authentication and verification technologies and services, including but not limited to the ARRIS ‘504 Products, ARRIS has injured MOV Intelligence and is liable to MOV Intelligence for directly infringing one or more claims of the ‘504 patent, including at least claims 1 and 10, pursuant to 35 U.S.C. § 271(a).

146. On information and belief, ARRIS also indirectly infringes the ‘504 patent by actively inducing infringement under 35 USC § 271(b).

147. On information and belief, ARRIS had knowledge of the ‘504 patent since at least service of this Complaint or shortly thereafter, and on information and belief, ARRIS knew of the ‘504 patent and knew of its infringement, including by way of this lawsuit.

148. On information and belief, ARRIS intended to induce patent infringement by third-party customers and users of the ARRIS ‘504 Products and had knowledge that the inducing acts would cause infringement or was willfully blind to the possibility that its inducing acts would cause infringement. ARRIS specifically intended and was aware that the normal and customary use of the accused products would infringe the ‘504 patent. ARRIS performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge of the ‘504 patent and with the knowledge that the induced acts would constitute infringement. For example, ARRIS provides the ARRIS ‘504 Products that have the capability of operating in a manner that infringe one or more of the claims of the ‘504 patent, including at least claims 1 and 10, and ARRIS further provides documentation and training materials that cause customers and end users of the ARRIS ‘504 Products to utilize the products in a manner that directly infringe one or more claims of the ‘504 patent. By providing instruction and training to customers and end-users on how to use the ARRIS ‘504 Products in a manner that directly

infringes one or more claims of the ‘504 patent, including at least claims 1 and 10, ARRIS specifically intended to induce infringement of the ‘504 patent. On information and belief, ARRIS engaged in such inducement to promote the sales of the ARRIS ‘504 Products, e.g., through ARRIS user manuals, product support, marketing materials, and training materials to actively induce the users of the accused products to infringe the ‘504 patent. Accordingly, ARRIS has induced and continues to induce users of the accused products to use the accused products in their ordinary and customary way to infringe the ‘504 patent, knowing that such use constitutes infringement of the ‘504 patent.

149. The ‘504 patent is well-known within the industry as demonstrated by the over 30 citations to the ‘504 patent family in issued patents and published patent applications assigned to technology companies and academic institutions (*e.g.*, Apple, Inc. and Electronics and Telecommunications Research Institute (ETRI)). Several of ARRIS’s competitors have paid considerable licensing fees for their use of the technology claimed by the ‘504 patent. In an effort to gain an advantage over ARRIS’s competitors by utilizing the same licensed technology without paying reasonable royalties, ARRIS infringed the ‘504 patent in a manner best described as willful, wanton, malicious, in bad faith, deliberate, consciously wrongful, flagrant, or characteristic of a pirate.

150. To the extent applicable, the requirements of 35 U.S.C. § 287(a) have been met with respect to the ‘504 patent.

151. As a result of ARRIS’s infringement of the '504 patent, MOV Intelligence has suffered monetary damages, and seeks recovery in an amount adequate to compensate for ARRIS’s infringement, but in no event less than a reasonable royalty for the use made of the invention by ARRIS together with interest and costs as fixed by the Court.

**COUNT V**  
**INFRINGEMENT OF U.S. PATENT NO. 6,931,536**

152. MOV Intelligence references and incorporates by reference the preceding paragraphs of this Complaint as if fully set forth herein.

153. ARRIS designs, makes, uses, sells, and/or offers for sale in the United States products and/or services for enhanced copy protection using multiple watermarks embedded in digital content.

154. ARRIS designs, makes, sells, offers to sell, imports, and/or uses ARRIS SECUREMEDIA HLS+ (the “ARRIS ‘536 Products”).

155. On information and belief, one or more ARRIS subsidiaries and/or affiliates use the ARRIS ‘536 Products in regular business operations.

156. On information and belief, one or more of the ARRIS ‘536 Products include watermarking technology.

157. On information and belief, one or more of the ARRIS ‘536 Products contains functionality using two or more watermarks embedded in digital content for enhanced copy protection.

158. On information and belief, one or more of the ARRIS ‘536 Products enable detecting a watermark embedded in selected blocks of a watermarked data stream having a plurality of data elements.

159. On information and belief, the ARRIS ‘536 Products are available to businesses and individuals throughout the United States.

160. On information and belief, the ARRIS ‘536 Products are provided to businesses and individuals located in the Eastern District of Texas.

161. On information and belief, the ARRIS ‘536 Products enable the detection or placement of a watermark in data.

162. On information and belief, the ARRIS ‘536 Products comprise a system wherein a first watermark is to be processed by programmable and non-programmable devices configured to process the first watermark for copy protection of the proprietary material.

163. On information and belief, the ARRIS ‘536 Products enable looking for and processing the second watermark for copy protection of the proprietary material upon failing to detect the first watermark.

164. On information and belief, the ARRIS ‘536 Products enable searching for a first watermark embedded in digital content.

165. On information and belief, the ARRIS ‘536 Products contain functionality wherein if the first watermark is detected, the ‘536 Products process the first watermark for copy protection of the digital content. The ‘536 Products also contain functionality wherein if the first watermark is not detected, the ARRIS ‘536 Products will search for a second watermark in the digital content.

166. On information and belief, the ARRIS ‘536 Products enable the processing of a second watermark for copy protection of the digital content if a second watermark is detected.

167. On information and belief, the ARRIS ‘536 Products enable the detection of a watermark.

168. On information and belief, ARRIS has directly infringed and continues to directly infringe the ‘536 patent by, among other things, making, using, offering for sale, and/or selling digital content protection technology, including but not limited to the ARRIS ‘536 Products, which include infringing watermarking technologies. Such products and/or services include, by way of example and without limitation, ARRIS SECUREMEDIA HLS+.

169. By making, using, testing, offering for sale, and/or selling watermarking products and services, including but not limited to the ARRIS ‘536 Products, ARRIS has injured MOV Intelligence and is liable to MOV Intelligence for directly infringing one or more claims of the ‘536 patent, including at least claims 25 and 35, pursuant to 35 U.S.C. § 271(a).

170. On information and belief, ARRIS also indirectly infringes the ‘536 patent by actively inducing infringement under 35 USC § 271(b).

171. On information and belief, ARRIS had knowledge of the ‘536 patent since at least service of this Complaint or shortly thereafter, and on information and belief, ARRIS knew of the ‘536 patent and knew of its infringement, including by way of this lawsuit.

172. On information and belief, ARRIS intended to induce patent infringement by third-party customers and users of the ARRIS ‘536 Products and had knowledge that the inducing acts would cause infringement or was willfully blind to the possibility that its inducing acts would cause infringement. ARRIS specifically intended and was aware that the normal and customary use of the accused products would infringe the ‘536 patent. ARRIS performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge of the ‘536 patent and with the knowledge that the induced acts would constitute infringement. For example, ARRIS provides the ARRIS ‘536 Products that have the capability of operating in a manner that infringe one or more of the claims of the ‘536 patent, including at least claims 25 and 35, and ARRIS further provides documentation and training materials that cause customers and end users of the ARRIS ‘536 Products to utilize the products in a manner that directly infringe one or more claims of the ‘536 patent. By providing instruction and training to customers and end-users on how to use the ARRIS ‘536 Products in a manner that directly infringes one or more claims of the ‘536 patent, including at least claims 25 and 35, ARRIS specifically intended to induce infringement of the ‘536 patent. On information and belief, ARRIS engaged in such inducement to promote the sales of the ARRIS ‘536 Products, e.g., through ARRIS user manuals, product support, marketing materials, and training materials to actively induce the users of the accused products to infringe the ‘536 patent. Accordingly, ARRIS has induced and continues to induce users of the accused products to use the accused products in their ordinary and customary way to infringe the ‘536 patent, knowing that such use constitutes infringement of the ‘536 patent.

173. The '536 patent is well-known within the industry as demonstrated by the over 120 citations to the '536 patent in issued patents and published patent applications assigned to technology companies and academic institutions (*e.g.*, Sony Corporation and Sanyo Electric Co. Ltd.). Several of ARRIS's competitors have paid considerable licensing fees for their use of the technology claimed by the '536 patent. In an effort to gain an advantage over ARRIS's competitors by utilizing the same licensed technology without paying reasonable royalties, ARRIS infringed the '536 patent in a manner best described as willful, wanton, malicious, in bad faith, deliberate, consciously wrongful, flagrant, or characteristic of a pirate.

174. To the extent applicable, the requirements of 35 U.S.C. § 287(a) have been met with respect to the '536 patent.

175. As a result of ARRIS's infringement of the '536 patent, MOV Intelligence has suffered monetary damages, and seeks recovery in an amount adequate to compensate for ARRIS's infringement, but in no event less than a reasonable royalty for the use made of the invention by ARRIS together with interest and costs as fixed by the Court.

**PRAYER FOR RELIEF**

WHEREFORE, Plaintiff MOV Intelligence respectfully requests that this Court enter:

- A. A judgment in favor of Plaintiff MOV Intelligence that ARRIS has infringed, either literally and/or under the doctrine of equivalents, the '127 patent, the '230 patent, the '006 patent, the '504 patent, and the '536 patent;
- B. An award of damages resulting from ARRIS's acts of infringement in accordance with 35 U.S.C. § 284;
- C. A judgment and order finding that Defendant's infringement was willful, wanton, malicious, bad-faith, deliberate, consciously wrongful, flagrant, or characteristic of a pirate within the meaning of 35 U.S.C. § 284 and awarding to Plaintiff enhanced damages.

- D. A judgment and order finding that this is an exceptional case within the meaning of 35 U.S.C. § 285 and awarding to Plaintiff its reasonable attorneys' fees against Defendant.
- E. Any and all other relief to which MOV Intelligence may show itself to be entitled.

**JURY TRIAL DEMANDED**

Pursuant to Rule 38 of the Federal Rules of Civil Procedure, MOV Intelligence requests a trial by jury of any issues so triable by right.

Dated: September 22, 2016

Respectfully submitted,

/s/ Dorian S. Berger  
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